

# Work Order ID' 51515

August 25, 2009 1:34:39 PM



Page 1

Item ID: D205-634-041

Accept



Setup Start



Revision ID: D

Stop



Item Name: Replacement Skidtube

Start Date: 8/24/09 Start Qty: 1.00



Cust Item ID:

Required Date: 8/24/09 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

*[Signature]*

Date: 09-8-25 Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Draw<br>Number | Draw<br>Rev. | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|

Draw Nbr

Revision Nbr

D2580

Rev D

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002

*RS 09-10-22*

110

0.00



BENDING MACHINE - SKIDTUBES

CNC Bend I

Memo

0.00

CNC Delta 100 Bender

1-Bend as per program D2580.C on CNC Bender and Folio FT009

2-Cut tubes as per Dwg. D2580

*DP 9-9-29*

51515

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Work Order ID 51515

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Item ID: D205-634-041

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Setup Start



Revision ID: D

Stop



Item Name: Replacement Skidtube

Start Date: 8/24/09 Start Qty: 1.00



Cust Item ID:

Required Date: 8/24/09 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Stop



Approvals: Process Plan: Date: Tooling: Date:

QC: Date: SPC (Y/N): Date:

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Draw<br>Number | Draw<br>Rev. | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|

120

0.00



Skidtubes

Memo

0.00

Skidtubes

1- Deburr ends

2- C'sink holes as per dwg without cutting fluid

3- Prepare tube for welding, remove alodine as required.

4- Scribe batch number insied aft end of tube.

(14) MB 09-10-08

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

2) Salas

(4) 6

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                                |                                 |                |                           |                       |                          |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action<br>Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng           | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Work Order ID 51515

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Item ID: D205-634-041

Accept

Revision ID: D

Item Name: Replacement Skidtube

Start Date: 8/24/09 Start Qty: 1.00

Required Date: 8/24/09 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:  
QC: Date: SPC (Y/N): Date:

Run Start  
Stop

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Draw<br>Number | Draw<br>Rev. | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|

140

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Weld step D2576 as per Dwg. D2580 and QSI 004

A/R [ ] Aluminum Rod

mill 999

BE 09/10/08

2-Prep per QSI 005 and weld crossbolt spacers D2579 as per Dwg. D2580, QSI 004.

For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill

A/R [ ] Aluminum Rod

mill 999

BE 09/10/08

3-Grind welds as per Dwg D2580 Grind flush ridge made from bending

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web. Debur

5-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580. Debur holes

6-Drill pilot holes for aft cap using DT 8215 Open holes to 0.208". Debur

7-Drill pilot holes for Tow ring using DT8091, open to .640" and Debur

AWM 9-10 -10

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

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Item ID: D205-634-041

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Setup Start

Revision ID: D

Stop

Item Name: Replacement Skidtube

Start Date: 8/24/09 Start Qty: 1.00

Cust Item ID:

Required Date: 8/24/09 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: Date:

Tooling: Date:

Run Start

QC: Date:

SPC (Y/N): Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

170

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



# Work Order ID 51515

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Item ID: D205-634-041

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Setup Start

Revision ID: D

Stop

Item Name: Replacement Skidtube

Start Date: 8/24/09 Start Qty: 1.00

Cust Item ID:

Required Date: 8/24/09 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date: QC: Date: SPC (Y/N): Date:

Run Start

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

180

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

8:15am

320°F

9:45am

190

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control



09/10/14

(X1) 0

BR 09-10-14

0

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Work Order ID 51515

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Item ID: D205-634-041

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Setup Start



Revision ID: D

Item Name: Replacement Skidtube

Stop



Start Date: 8/24/09 Start Qty: 1.00



Cust Item ID:

Required Date: 8/24/09 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

200

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates  
A/R [ ] [ ] Sikaflex-291 M112391  
Sikaflex expire date: 10/20

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive  
A/R [ ] [ ] Sikaflex-291 M112391  
Sikaflex expire date: 10/20

5-Wing Walk as per Dwg D2580 and QSI 005 4.4  
Batch: M112106

mo 09/10/15

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Work Order ID 51515

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Item ID: D205-634-041

Accept



Setup Start



Revision ID: D

Stop



Item Name: Replacement Skidtube

Start Date: 8/24/09 Start Qty: 1.00



Cust Item ID:

Required Date: 8/24/09 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

| Sequence ID/<br>Work Center ID | Operation<br>Description   | Set Up/<br>Run Hours | Draw<br>Number | Draw<br>Rev. | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--|----------------------|----------------|--------------|--------------|---------------|---------------|------------------|----------------|
| 210                            | QC5- Inspect part completeness to step on W/O  | 0.00                 |                |              |              |               |               |                  |                |
|                                |  |                      |                |              |              |               |               |                  |                |
| QC                             |  | 0.00                 |                |              |              |               |               |                  |                |
| Quality Control                | Memo<br>Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for<br>Foreign objects per QSI 024         |                      |                |              |              |               |               |                  |                |
| 220                            | Packaging  | 0.00                 |                |              |              |               |               |                  |                |
|                                |  |                      |                |              |              |               |               |                  |                |
| Packaging                      |  | 0.00                 |                |              |              |               |               |                  |                |
| Packaging                      | Memo<br>Identify and pack for shipping as per PPPD205-634-041<br>Location: <u>          </u><br>PPP Rev: <u>          </u> |                      |                |              |              |               |               |                  |                |
| 230                            | QC21- Final Inspection - Work Order Release  | 0.00                 |                |              |              |               |               |                  |                |
|                                |  |                      |                |              |              |               |               |                  |                |
| QC                             |  | 0.00                 |                |              |              |               |               |                  |                |
| Quality Control                | Memo   |                      |                |              |              |               |               |                  |                |

09/10/22 (1)  
09/10/23  
MF 09-10-23

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

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Page 1

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Work Order ID: 51515

Parent Item: D205-634-041RevD

Parent Item Name: Replacement Skidtube

Start Date: 8/24/09

Required Date: 8/24/09

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D2580-1RevD                     |                        | Manufactured  | No          |                     |                  | 110             | Each               | 14.0000        | 1.0000                   |               |                |        |



205 Skidtube bent detail

B51742  
DP 9-9-29

| <u>Warehouse</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|------------------|----------------|-----------------|
| <u>Location</u>  |                |                 |
| Main Warehouse   |                |                 |
| LG               | 13             |                 |
| 50757            | 3              |                 |
| 50761            | 6              |                 |
| 50976            | 2              |                 |
| 50977            | 2              |                 |
| Main Warehouse   |                |                 |
| ST               | 1              |                 |
| 50758            | 1              |                 |

D2576-3RevG

Manufactured No

140

Each

141.0000

1.0000



Step (maching detail)

| <u>Warehouse</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|------------------|----------------|-----------------|
| <u>Location</u>  |                |                 |
| Main Warehouse   |                |                 |
| ST               | 141            |                 |
| 43504            | 40             |                 |
| 46661            | 101            |                 |

1 BE 09/10/08

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



# Picklist Print

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Work Order ID: 51515

Parent Item: D205-634-041RevD

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 8/24/09

Required Date: 8/24/09

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D2579RevE                       |                        | Manufactured  | No          |                     |                  | 140             | Each               | 464.0000       | 20.0000                  |               |                |        |



Crossbolt Spacer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

|       |     |
|-------|-----|
| ST    | 464 |
| 43988 | 4   |
| 46434 | 4   |
| 46956 | 2   |
| 47797 | 9   |
| 48272 | 22  |
| 51314 | 100 |
| 51315 | 323 |

B-51525  
MS  
09-10-08  
20 pcs

D2855RevA

Manufactured No

200 Each

29.0000 1.0000



Cap

Warehouse Loc Qty Loc Code

Location

Main Warehouse

|       |    |
|-------|----|
| FP    | -1 |
| 50513 | -1 |

Main Warehouse

|       |    |
|-------|----|
| FP6   | 31 |
| 50513 | 31 |

Main Warehouse

|       |    |
|-------|----|
| ST    | -1 |
| 50513 | -1 |

50770

XL MD 09/10/14

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

August 25, 2009 1:34:38 PM

Work Order ID: 51515

Parent Item: D205-634-041RevD

Parent Item Name: Replacement Skidtube



Comments:

Start Date: 8/24/09

Required Date: 8/24/09

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name   | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick  | Qty<br>Issued | Date<br>Issued | Status |
|---|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|---|---------------|----------------|--------|
| AN3-5A  |                        | Purchased     | No          |                     |                  | 200             | Each               | 2,515.000      | 2.0000  |               |                |        |
|  |                        |               |             |                     |                  |                 |                    |                |  |               |                |        |
| Bolt  |                        |               |             |                     |                  |                 |                    |                |   |               |                |        |

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

2515

100188

212

105057

2245

15205

58

AN960JD10L

Purchased

No

200

Each

6,679.000

2.0000



Washer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP

-2

109632

-2

Main Warehouse

ST

6681

101291

16

104885

153

105793

236

109632

1276

110985

5000

*X2 mo 09/10/14*

*X2 mo 09/10/14*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

August 25, 2009 1:34:38 PM

Work Order ID: 51515

Parent Item: D205-634-041RevD

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 8/24/09

Required Date: 8/24/09

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| ALS7-1032-130                   |                        | Purchased     | No          |                     |                  | 200             | Each               | 3,628.000      | 50.0000                  |               |                |        |



Insert

Warehouse Loc Qty Loc Code

Location

Main Warehouse

112772

ST

3628

105855

16

108606

52

111529

1560

111779

2000

AN3C4A

Purchased

No

200

Each

632.0000

50.0000



BOLT

Warehouse Loc Qty Loc Code

Location

Main Warehouse

112724

FP

-50

112314

-50

Main Warehouse

ST

682

112082

30

112314

652

X50 MD 09/10/14

X50 MD 09/10/14

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

August 25, 2009 1:34:38 PM

Work Order ID: 51515

Parent Item: D205-634-041RevD

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 8/24/09

Required Date: 8/24/09

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| AN960C10L                       |                        | Purchased     | No          |                     |                  | 200             | Each               | 2,946.000      | 50.0000                  |               |                |        |



washer

Warehouse Loc Qty Loc Code

Location

OFFSHORE

12612

x50 mo 09/10/14

FG

100

103585

100

Main Warehouse

FP

-50

112116

-50

Main Warehouse

ST

2896

112116

2896

D3566-13RevC

Manufactured No

200

Each

20.0000

1.0000



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

51606

x1 mo 09/10/14

FP

-1

48166

-1

Main Warehouse

ST

21

45717

1

46889

1

48166

3

50265

16

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



# Picklist Print

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Work Order ID: 51515

Parent Item: D205-634-041RevD

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 8/24/09

Required Date: 8/24/09

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D3566-5RevC                     |                        | Manufactured  | No          |                     |                  | 200             | Each               | 17.0000        | 1.0000                   |               |                |        |



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

51669

X1 MP 09/10/14

FP19

-1

51260

-1

Main Warehouse

ST

18

36113

1

46186

1

47318

1

48167

1

51260

14

D3566-1RevC

Manufactured

No

200

Each

27.0000

2.0000



Gasket

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

52512

X2 MP 09/10/14

FP

-2

51259

-2

Main Warehouse

ST

29

46349

1

47434

2

51218

1

51259

25

August 25, 2009 1:34:38 PM

Shop Packet Print

Page 6

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

August 25, 2009 1:34:38 PM

Work Order ID: 51515



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube

Start Date: 8/24/09

Required Date: 8/24/09

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D3564-11RevD                    |                        | Manufactured  | No          |                     |                  | 200             | Each               | 29.0000        | 1.0000                   |               |                |        |



Wearshoe

| <u>Warehouse</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|------------------|----------------|-----------------|
| <u>Location</u>  |                |                 |
| Main Warehouse   | 51599          |                 |
| FP               | 22             |                 |
| 51256            | 22             |                 |
| Main Warehouse   |                |                 |
| FP19             | -1             |                 |
| 50112            | -1             |                 |
| Main Warehouse   |                |                 |
| ST               | 8              |                 |
| 45823            | 1              |                 |
| 50112            | 7              |                 |

XL MO 09/10/14

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

August 25, 2009 1:34:38 PM

Work Order ID: 51515



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube

Start Date: 8/24/09

Required Date: 8/24/09

Comments:

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|--------------------------|---------------|----------------|--------|
| D3564-13RevD                    |                        | Manufactured  | No          |                     |                  | 200             | Each               | 30.0000        | 1.0000                   |               |                |        |
|                                 |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |
| Wearshoe                        |                        |               |             |                     |                  |                 |                    |                |                          |               |                |        |

| Warehouse       | Loc Qty | Loc Code |
|-----------------|---------|----------|
| <u>Location</u> |         |          |
| Main Warehouse  | 52059   |          |
| FP17            | 17      |          |
| 50270           | 17      |          |
| Main Warehouse  |         |          |
| FP19            | -1      |          |
| 50270           | -1      |          |
| Main Warehouse  |         |          |
| ST              | 14      |          |
| 45409           | 3       |          |
| 46495           | 10      |          |
| 47867           | 1       |          |

21 m009/10/04

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

August 25, 2009 1:34:38 PM

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Work Order ID: 51515

Parent Item: D205-634-041RevD

Parent Item Name: Replacement Skidtube



Comments:

Start Date: 8/24/09

Required Date: 8/24/09

Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name   | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick  | Qty<br>Issued | Date<br>Issued | Status |
|---|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|---|---------------|----------------|--------|
| D3564-9RevD   |                        | Manufactured  | No          |                     |                  | 200             | Each               | 20.0000        | 1.0000  |               |                |        |
|  |                        |               |             |                     |                  |                 |                    |                |  |               |                |        |
| Wearshoe  |                        |               |             |                     |                  |                 |                    |                |   |               |                |        |

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP19

-2

51258

-2

Main Warehouse

ST

22

44659

1

45825

1

51258

20

D3564-5RevD

Manufactured No

200

Each

17.0000

1.0000



Wearshoe

Warehouse Loc Qty Loc Code

Location

OFFSHORE

FG

2

34806

2

Main Warehouse

FP19

15

48555

1

51257

14

August 25, 2009 1:34:38 PM

Shop Packet Print

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| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



# Picklist Print

August 25, 2009 1:34:38 PM

Work Order ID: 51515



Parent Item: D205-634-041RevD



Parent Item Name: Replacement Skidtube



Start Date: 8/24/09

Required Date: 8/24/09

Comments:



Start Qty: 1.00

Required Qty: 1.00

| Component Item ID/<br>Item Name   | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Remaining<br>Qty To Pick  | Qty<br>Issued | Date<br>Issued | Status |
|---|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|---|---------------|----------------|--------|
| D2594-3RevC   |                        | Manufactured  | No          |                     |                  | 200             | Each               | 542.0000       | 16.0000   |               |                |        |
|  |                        |               |             |                     |                  |                 |                    |                |  |               |                |        |
| O-Ring, 205 Skidtube  |                        |               |             |                     |                  |                 |                    |                |   |               |                |        |

| Warehouse      | Loc Qty | Loc Code |
|----------------|---------|----------|
| Location       | 51613   |          |
| Main Warehouse |         |          |
| ST             | 542     |          |
| 27168          | 44      |          |
| 29908          | 498     |          |

X16 m009110/14

|   |              |    |     |      |          |   |
|---|--------------|----|-----|------|----------|---|
| D2594-1RevC   | Manufactured | No | 200 | Each | 348.0000 | 16.0000   |
|  |              |    |     |      |          |  |
| Plug, 205 Skidtube  |              |    |     |      |          |   |

| Warehouse      | Loc Qty | Loc Code |
|----------------|---------|----------|
| Location       | 51757   |          |
| Main Warehouse |         |          |
| ST             | 348     |          |
| 42221          | 16      |          |
| 42807          | 92      |          |
| 43884          | 3       |          |
| 46435          | 2       |          |
| 47251          | 235     |          |

X16 m009110/14

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

**DART**

|                  |                |  |                        |
|------------------|----------------|--|------------------------|
| DESIGN<br>#      | DRAWN BY<br>RH | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA   |                        |
| CHECKED<br>#     | APPROVED<br>#  | DRAWING NO.<br>D2580                                       | REV. D<br>SHEET 1 OF 3 |
| DATE<br>07.02.27 |                | TITLE<br>205 SKIDTUBE ASSEMBLY                             | SCALE<br>NTS           |
| A                | 96.09.16       | NEW ISSUE  |                        |
| B                | 96.12.02       | AS MANUFACTURED  |                        |
| C                | 98.08.26       | REDRAWN, INCLUDED DEO 9094/9097                            |                        |
| D                | 07.02.27       | CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183 |                        |

**RELEASED**  
07-06-28 #

| QTY<br>-041 | QTY<br>-045 | Part Number   | Description       |
|-------------|-------------|---|-------------------|
| X           |             | D2580-041   | SKIDTUBE ASSEMBLY |
|             | X           | D2580-045   | SKIDTUBE ASSEMBLY |
| 1           | 1           | D2500-1-190   | EXTRUSION         |
| 1           | 1           | D2576-3   | STEP              |
| 20          | 24          | D2579   | CROSS BOLT SPACER |
| 16          | 16          | D2594-1   | PLUG              |
| 16          | 16          | D2594-3   | O-RING            |
| 1           | 1           | D2596   | 205 WEB           |
| 1           | 1           | D2855   | AFT CAP           |
| 1           | 1           | D3564-5   | WEARSHOE          |
| 1           | 1           | D3564-9   | WEARSHOE          |
| 1           | 1           | D3564-11  | WEARSHOE          |
| 1           | 1           | D3564-13  | WEARSHOE          |
| 2           | 2           | D3566-1   | GASKET            |
| 1           | 1           | D3566-5   | GASKET            |
| 1           | 1           | D3566-13  | GASKET            |
| 50          | 50          | ALS7-1032-130<br>or AKS7-1032-130<br>or AKS4-1032-130<br>or AELS-1032-130 | INSERT            |
| 50          | 50          | AN3C4A  | BOLT              |
| 2           | 2           | AN3-5A  | BOLT              |
| 50          | 50          | AN960C10L   | WASHER            |
| 2           | 2           | AN960JD10L  | WASHER            |

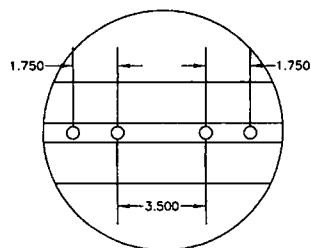
**GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:  
SEE NOTES ON  
PAGE 2 FOR D2580-041 AND  
PAGE 3 FOR D2580-045
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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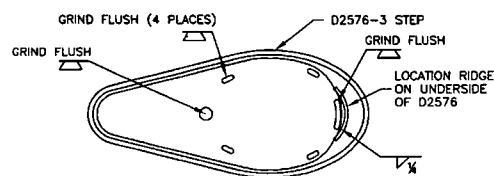
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**DETAIL A**  
SCALE 5:24

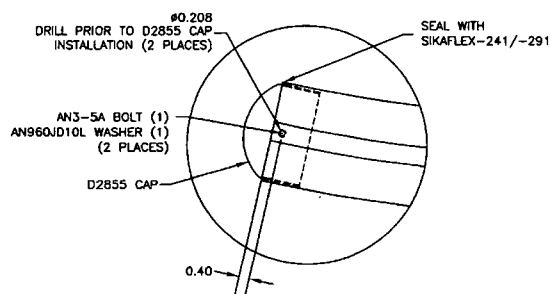


RELEASED  
07-06-28

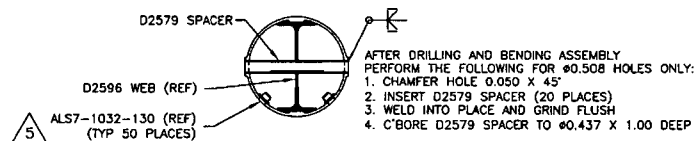
**DETAIL B**  
SCALE 5:24



**DETAIL C**  
SCALE 5:24



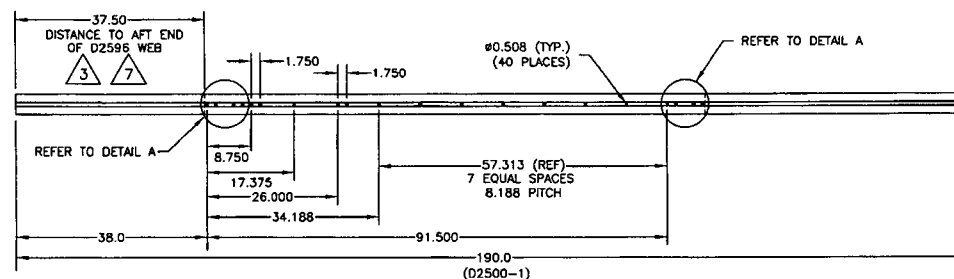
**SECTION D-D**  
SCALE 5:24



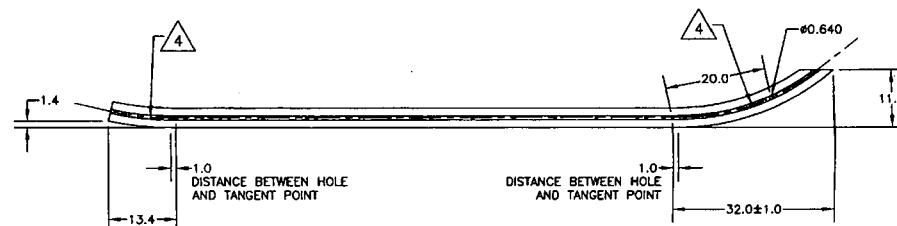
**D2580-041 NOTES**

- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

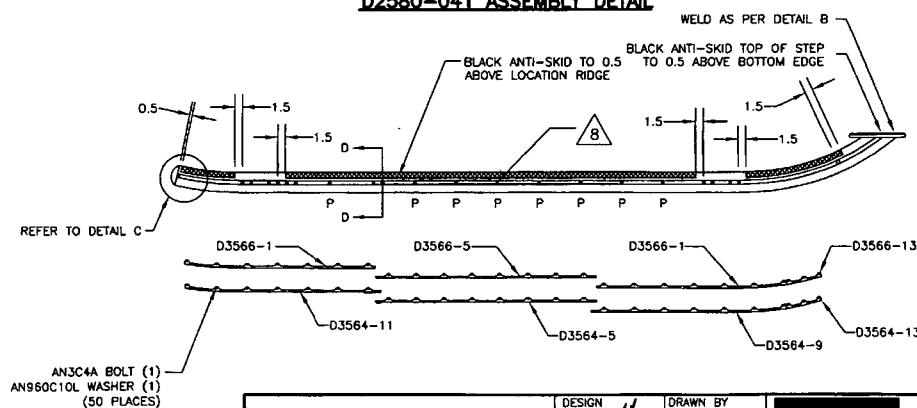
D2580-1 DRILLING DETAIL



D2580-1 BENDING AND CUTTING DETAIL



**D2580-041 ASSEMBLY DETAIL**



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| DESIGN | ✓✓ |
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**DART**

**DART AEROSPACE LTD.**  
HAMPSHIRE, ONTARIO, CANADA

|  |             |
|--|-------------|
|  | DRAWING NO. |
|--|-------------|

D2580

|         |
|---------|
| 02500   |
| TITLE 5 |

| TITLE | DATE | BY  | NO. | PRICE | REMARKS |
|-------|------|-----|-----|-------|---------|
| ...   | ...  | ... | ... | ...   | ...     |

205 S

RE

SHEET 2 OF 2

SHEET 2 OF 2

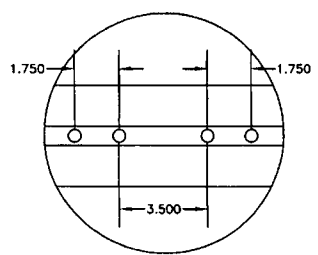
— *Journal of the American Medical Association*, 1997

## ASSEMBLY

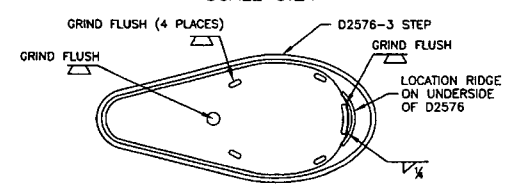
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51515

**DETAIL E**  
SCALE 5:24

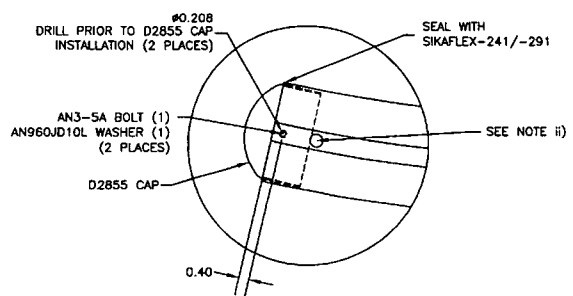


**DETAIL F**  
SCALE 5:24

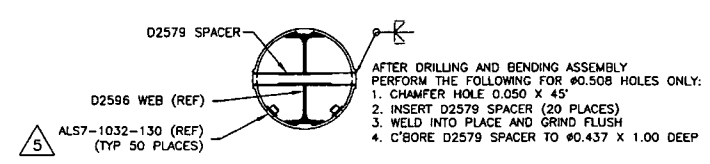


**RELEASED**  
07 Dec 18

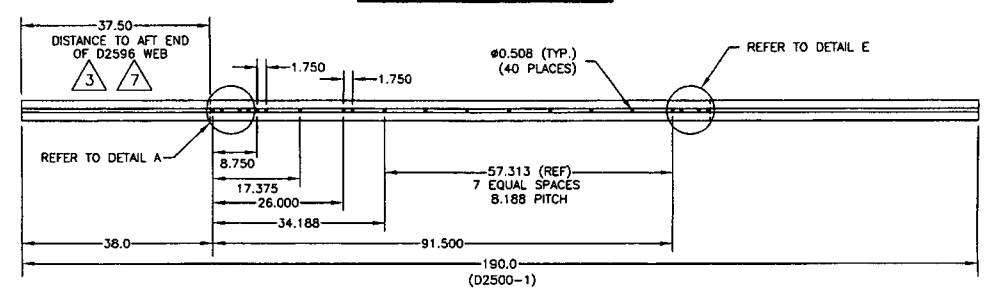
**DETAIL G**  
SCALE 5:24



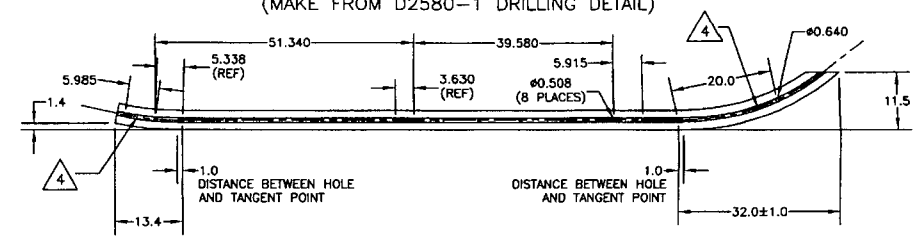
**SECTION H-H**  
SCALE 5:24



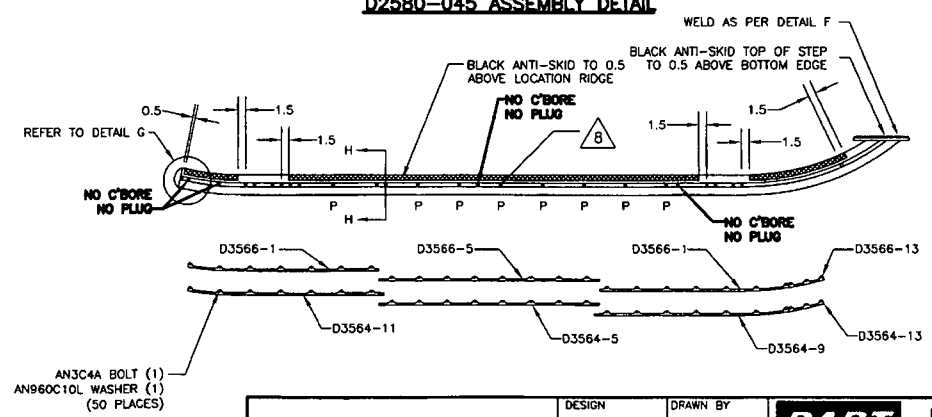
**D2580-1 DRILLING DETAIL**



**D2580-5 BENDING AND CUTTING DETAIL**  
(MAKE FROM D2580-1 DRILLING DETAIL)



**D2580-045 ASSEMBLY DETAIL**



**D2580-045 NOTES**

- FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB  
POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION

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|---------------------|--------------------------------|--|--------------|
| DESIGN<br><i>RH</i> | DRAWN BY<br><i>RH</i>          | <b>DART</b> DART AEROSPACE LTD.<br>HAWKESBURY, ONTARIO, CANADA | REV. 0       |
| CHECKED<br><i>H</i> | APPROVED<br><i>H</i>           | DRAWING NO.<br>D2580   | SHEET 3 OF 3 |
| DATE<br>07.02.27    | TITLE<br>205 SKIDTUBE ASSEMBLY | SCALE<br>1:24  |              |

NO. 212

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barday Elliott  
Job number: 51505  
Part number: D205-634-041  
Description: 205 skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminium  
Current: AC[ ] DC[ ]

**TEST REQUIREMENTS AND RESULTS**

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

**UNACCEPTABLE**

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier Paul D. [Signature] Date of Test Coupon 09.10.09  
Welder Barday Elliott Date of Test Coupon 09-10-09

The above named individual is qualified in accordance with AWS D17.1.2001 to weld